

KRETZSCHMAR, (P. H.) *al*

PUBLIC HEALTH RESORTS

VS.

INSTITUTIONS FOR THE TREATMENT

OF

BACILLARY PHTHISIS.

BY

PAUL H. KRETZSCHMAR, M.D.,

OF BROOKLYN, N. Y.,

Fellow of the New York Academy of Medicine, Vice-President of the
Brooklyn Pathological Society, Consulting Physician to the
German Lutheran Hospital, etc., etc.



PHILADELPHIA:
RECORDS, McMULLIN & CO., LIMITED.

1888.

PUBLIC HEALTH RESORTS
VS.
INSTITUTIONS FOR THE TREATMENT OF
BACILLARY PHTHISIS.

BY PAUL H. KRETZSCHMAR, M.D.,
OF BROOKLYN, N. Y.

(Read at the Congress of American Physicians and Surgeons, Washington, D. C., before the American Climatological Association, September 18, 1888.)

THAT special branch of medical science which interests us most—phthisiotherapy—has not kept pace with some other branches of our profession. Much has been done, however, to exclude speculation and empiricism, and to elevate phthisiotherapy to a truly scientific basis. All efforts to establish any specific method of treating pulmonary consumption successfully, have failed, and even those endeavors to treat the disease by direct local application of appropriate remedial agents, which created so much enthusiasm recently, did not stand the test of experience. Of all the manifold ways which have been employed to relieve pulmonary consumption of its terrible effects upon the human race, none is as old, and none has had more earnest supporters than climatherapy. Hippocrates already considered change of residence as beneficial; Celsus was an admirer of the influence of proper climate upon pulmonary consumption, and advised sea voyages, residence near the coast or in the country, and for those who had



not lost much vitality, long journeys. Plinius, the elder, was, probably, the first one who claimed beneficial influence of pine forrests in cases of pulmonary troubles; Galen sent his patients to the mountains, and ordered a well-regulated milk diet. Thomas Willis reports that, as early as 1650, the southern part of France was renowned as a country where phthisical patients from England and the northern part of Europe found relief during the cold, winter months. Laennec spoke with enthusiasm of the benefit derived from sea air, and died, himself, in a room the floor of which was covered with sea-grass. Fuchs, Mühry, and Brehmer established the fact that the inhabitants of regions of a certain elevation over tide-water are relatively free from pulmonary consumption, and thereupon the claim of immunity from phthisis for certain mountainous districts was based. Dr. H. Brehmer was the first one who established a sanatorium for the treatment of pulmonary consumption, and it is only fair to give him credit for the advance which has been made during the last three decades in developing a strictly scientific and systematic method of treating phthisis in institutions established for that purpose. For much information the writer is indebted to Dr. H. Brehmer, in Goerbersdorf, and Dr. P. Dettweiler, in Falkenstein, and he takes this opportunity to thank these gentlemen, and also Dr. E. L. Trudeau, of Saranac Lake, N. Y., publicly for the many courtesies which they have extended to him during his recent visit to their establishments, and since then by frequent correspondence. The careful and impartial observer must long have arrived at the conclusion that practical therapeutics have developed to a higher degree in this country than in Europe, and it is, therefore, astonishing that in *some* branches we should so evidently be

behind our professional brethren over the Atlantic. Balneology, as well as the medical and therapeutical use of natural mineral water and rational treatment of pulmonary phthisis, are the subjects in which we must admit the superiority of Europe. The most striking example of medical mismanagement of natural springs offers our favorite summer and pleasure resort, Saratoga.

It will hardly admit of any discussion that Saratoga possesses the largest variety of mineral springs in the world, and that many of them may be classified among those which contain as important and valuable combinations as can be found anywhere in nature's laboratory. Nobody will deny that thousands and tens of thousands visit the famous spa yearly, and that many derive benefit from it; this is in most instances easily accounted for by the change of surroundings, the pleasant journey to Saratoga, the purity and dryness of the air, the relief from business troubles and from the cares of daily life, and last and not least, occasionally dependent upon a well-regulated course of taking advantage of nature's remedy—the mineral waters. While the success of Saratoga as a pleasure and summer resort for the fashionables of all States of the Union *originated*, undoubtedly, through the fact of it having within its immediate vicinity mineral springs well adapted for beneficial use in most of the ailments known to our race, it *now holds* its high position in popular favor more on account of its large and well-equipped hotels with their charming lawns, the beautiful drives it offers over the well-kept streets and avenues—lined with the most elegant of modern cottages—the horse races, the excellent daily concerts, the freedom and ease of Saratoga life generally, and that important factor in these days, *ergo* fashion.

The European watering places—such as Carlsbad, Marienbad, Kissingen, Teplitz, Aix les Bains, and others—are visited every summer by thousands of Americans in search of restoration to health, notwithstanding the fact that our own mineral waters are, in some instances, superior to or at least as efficient as those found in foreign countries. The question naturally arises, Why, if we have valuable mineral springs in our own country, should so many undertake the long, hazardous, and expensive journey to the European springs? The explanation is near at hand: mineral waters, more than other remedial agents, affect the human organism in the desired way *only* if administered in conformity with proper hygienic, dietetic, and therapeutic regulations adapted to each individual case, and the greater efficiency which is accredited to the springs of Europe does not depend so much upon the chemical combination of the waters as upon the close and careful medical supervision of the daily life of every patient, and upon the regular and medicinal use of the mineral waters.

It may seem that this reference to mineral springs is rather foreign to the subject under discussion now, but the writer could not refrain from emphasizing the great importance of *medical* management of watering places if they shall be classified as health resorts, rather than summer or pleasure resorts. Health resorts for consumptives need medical supervision more than those for other patients, and experience has proven that better results are obtained in the Sanitaria of Goerbersdorf, Falkenstein, Reiboltsgruen, and Saranac Lake, than at the open health resorts—such as Mentone, Davos, Nice, Colorado Springs, Aiken, Paul Smith's, or similar places.

I make this statement upon the authority of Drs.

H. Brehmer and P. Dettweiler; the former states in a recent letter that over seven hundred patients were treated at his sanatorium during the year 1887, and that 13 per cent. of the whole number and 53 per cent. of those belonging to the first stage of consumption were discharged cured, and that he considers only such patients as cured who, with the entire disappearance of all the signs and symptoms of pulmonary consumption, show freedom from tubercular bacilli in the sputum for as many as ten consecutive examinations—two being made every week. Dr. P. Dettweiler, who himself has been suffering from bacillary phthisis, and had at one time been a patient and afterwards one of the assistants in Dr. Brehmer's sanatorium, says: "If it is of interest to hear the testimony of a physician who has lived for over fifteen years among consumptives, and who has suffered from the disease for even a longer period, but who is now so entirely cured that even with the greatest care bacilli cannot be found, I formulate my opinion as follows: Under proper sanatorium treatment, if the disease has not made too much progress, and if the treatment is continued for a sufficient length of time, *more than one-half of all cases of bacillary phthisis should be cured, and they will remain so if the patient will live accordingly.*"

The great work of Robert Koch has done much to define our knowledge of the pathology of phthisis; the etiology of the disease has, in some respects, been made clear by it, but phthisiotherapy has not derived as much benefit from his discovery and from the works of his immediate followers as many had hoped for at first.

Neither climatic influences nor medical or surgical treatment, whether applied directly to the diseased lung tissue or through the general organism, nor

increased nutrition, nor open-air camping or resting, nor mountain-climbing, nor the systemic use of baths, douches, mineral waters, or massage have, as yet, enabled us to lay down any reliable guide for the successful treatment of pulmonary consumption, and it is safe to say that we are entirely without means to combat with the bacillus tuberculosis specifically, just as we are still in the dark regarding the knowledge of the *contagious* character of bacillary phthisis in the human race. Discarding all specific medication, it should be our endeavor so to combine *all* remedial forces at our command as to strengthen and invigorate the great complex of the cells—the general organism—and thereby to enable the diseased organ to resist the destructive invasion of the tubercular bacillus. It is our duty to study carefully the means and ways by which this result can be obtained, not only accidentally or occasionally; to find out how the largest number of cases can be cured, not only benefited or temporarily improved. This method of treating bacillary phthisis may be called “eclectic” in the broad sense of the word, and it depends for its success, not only upon the beneficial influence upon the patient’s condition, derived from the variety of means to be selected from, but also, and to a considerable degree, upon a careful study of avoiding all such influences, conditions, and circumstances as may bring danger to the enfeebled patient. To carry out this method in all its details, rationally and successfully, it is essential that the physician should have the widest possible control over *everything* that might influence the condition of the patient either favorably or otherwise, and *such* a supervision and control cannot be obtained outside of a well-regulated sanatorium; the writer claims that patients suffering from bacillary phthisis will have the best chances for res-

toration, and will, in a majority of cases, be cured while in the first stage of the disease, if properly treated in a sanatorium.

The decided preference which the writer gives the sanatorium over open health resorts is founded upon a careful study of places of either character, and upon personal experiences gathered while visiting health resorts both here and abroad. A few striking examples which must necessarily appeal to the intelligence of every one may here be mentioned:

1. It is customary in Davos—the most celebrated of Swiss health resorts—to have twice a week concerts in the large parlors of “Kurhaus Holsboer,” the guests sitting in large number at the tables, drinking beer and smoking *ad libitum*.

2. The second day of my stay in Davos I met an old friend, who invited me to visit him at his hotel—Schweizerhof—during the afternoon. On my arrival I found my friend, with three others—all of them phthisical patients—playing cards, smoking and drinking beer in the guest-room, where others could be found enjoying themselves in the same or similar manner. To my own knowledge the party kept up the interesting and somewhat exciting game of scat from 4.30 to 8.30 P.M., and one or two of them drank as much as five litres of Bavarian beer.

3. A gentleman who had been in Davos about eight months, and had been improving considerably, informed me that about ten days previously he had joined a party of friends—not patients—and had climbed one of the neighboring mountains, the Schatzalp; that he felt *entirely exhausted* after his return home. The following day he had a slight hemorrhage, and has had fever ever since.

4. In Davos the guests, whether sick or not, smoke in the bar-room, the reading-room, the billiard-room

of the favorite Kurhaus Holsboer. In Brehmer's Sanatorium smoking is strictly prohibited within the walls of any of the buildings, and even in front of the winter or palm garden, and at those places in the park where the patients congregate.

5. During my recent visit to the Adirondacks I saw a gentleman, who had informed me that he had lost twenty-three pounds within six months, and whose constant coughing plainly indicated the source of his wasting away, standing in front of the bar and drinking one bottle of English stout, the bar-room at that time being filled with from fifteen to twenty guides smoking cheap cigars or poor tobacco from pipes. After drinking the porter the gentleman went from the hot and close bar-room a short distance through the yard into another building containing the billiard-room, and there he played pool for two hours, he and the other two players smoking. Before retiring the party once more crossed the yard and took another drink. It may be stated that the writer was informed that the gentleman just spoken of had been advised by his physician to drink stout for his health.

6. At Paul Smith's, in the Adirondacks, a place which deserves the reputation it enjoys as a summer and pleasure resort, many faces bear the evidence of pulmonary troubles. But dancing is going on every night in the week, and many young women who visit that famous region of the State of New York in search of restoration to health, indulge. They become excessively hot, breathe the dust caused by dancing, and, resting on the arm of the gallant cavalier, they afterwards take a walk in the chilly night air.

7. A personal friend of the writer, who stays now at Rainbow, near Saranac Lake, told him that he had

been improving right along until a short time ago, when, after rowing *fifteen* miles, he felt very much exhausted, and that he had been losing ground since then.

Is it necessary to say that such errors as observed in open health resorts could not very easily be committed in any properly-conducted sanatorium? Another personal observation may be mentioned here: At the Salle de Réunion, in the Kurhaus of Davos-Platz, an inscription attracted my attention. It reads: "Hilares mox sani." (if one is only merry he will soon be well), and at a like prominent place in the hall of the largest buildings of Dr. Brehmer's Sanatorium, in Goerbersdorf, the following words can be read: "Die Partienten Kommen nicht um sich zu amuesiren, soudern um geheilt zu werden" (patients do not come here to amuse themselves, but to be cured). These inscriptions speak for themselves—one selected by the largest hotel in Davos, the other one by Dr. Brehmer. They seem to indicate the object and the tendency of both places.

Consumptives, expecting to be cured, should not select resorts where the well find rest and recreation or outdoor sport. A vast difference exists between a general improvement in the condition of a consumptive and the cure of bacillary phthisis. Many cases do comparatively well at either the Southern health resorts, with the warm and somewhat moist atmosphere, or the colder mountain places, with the dry and dilated air of high altitudes. But it seems to the writer to be wiser and more judicious to place all such cases as available to treatment, as soon as possible, in a properly-located and scientifically-conducted sanatorium. The importance of selecting a favorable location is self-apparent, but to illustrate the wide difference which exists in the death-rate of certain

localities, which might either be selected by a patient, if it be left to himself or herself, the writer calls attention to the relative mortality among the natives of the best known southern health resorts of Europe, Nice and Goerbersdorf, where the cradle of the institutions for the cure of consumption stood. In Nice the death-rate is 35.5 per mille., and, according to Sigmund, one in seven, according to Lippert, one in ten, die of consumption. In Goebersdorf the death-rate is 10 per mille., and during the last twenty-six years only *five* persons—the village having over a thousand inhabitants—or one in fifty-five, died of chronic pulmonary diseases.

It is the prevailing opinion within and outside of the medical profession that the presence of consumptive patients at the so-called summer places or health resorts not only interferes with the enjoyment of the well guests, but places them in constant danger of infection, and such is undoubtedly the case in some instances. If, however, the amount of damage done could be accurately ascertained, it would be demonstrated, without doubt, that the phthisical patients suffer in a much higher degree from living among well people than the latter do by the presence of the former. The hopeful nature of consumptives is proverbial, and few, if any of them, fully comprehend the seriousness of their illness; the company of the healthy brings temptations every day, and more injury is done to consumptives by injudicious friends than a casual observer will admit.

Entertainments of the most innocent nature—such as rowing, tennis playing, the climbing of hills, or even walking long distances, singing, dancing, etc., which contribute much towards the legitimate enjoyment of the healthy, may and frequently do much harm to those suffering from consumption. It is not

claimed that the unfortunate sufferers should not indulge in these pleasures, but if they do so *together* with the strong and healthy, they will be always in danger of overtaking their enfeebled organism. What may be proper and even beneficial exercise, under the supervision and direction of the painstaking sanatorium physician for patients on the road to recovery, or for those with a good deal of vitality, the same may do harm to patients with more advanced lesions, and it is essential that the limit and the extent of outdoor pleasures and exercise be just as strictly defined as other means are, which are employed by the attending physician—not by the patient's own selection—for the treatment of the disease.

It is admitted that the average American is strongly opposed to submit his own personal freedom and all his doings to the stringent rules and regulations of a sanatorium, but if we succeed in convincing him of the great benefit which he gains by placing himself under such control, and if he can be made to understand that to be cured he must offer sacrifices, the general antipathy to sanatoria should be overcome. Dr. Brehmer's institution, which is situated near the City of Breslau, about twelve hours' ride by rail from Berlin, is visited annually by hundreds of patients coming from foreign countries, and even Frenchmen, who avoid, as much as possible, the support of German institutions, are there in considerable number.

Among the many difficult tasks to be performed by the sanatorium physician, none is more delicate and of more vital importance than that of educating the patients to a true comprehension of the real nature of their disease, and of gaining their implicit confidence and strict obedience. We hear it often said that the true physician is also a teacher and a min-

ister, and he *must* be both if to be a successful manager of a sanatorium for phthisical patients. Only a man endowed with great patience, self-denial, knowledge of human nature, kindness of heart, coupled with firmness of decision, a man who practises medicine for the love of it, one who has a thorough knowledge of the disease he is to fight, is the fit person to conduct a sanatorium for the cure of consumption.

It is still a disputed question, and one open to discussion, whether it is always wise to inform the patient of his real condition, and in general practice it is usually considered unwise to tell a consumptive the naked truth regarding his case ; nor is it advisable in cases of acute diseases for the attending physician to deliver lectures to his patients about their troubles and the mode of action of the remedies employed, but the success of sanatorium practice depends so much upon obedience to the laws of hygiene, dietetics, and physiology, that it is essential the patients should be thoroughly acquainted with the nature of their disease, and without discouraging them in their efforts to restoration to health, they must be made to understand that they are suffering from a disease which, though curable, is of a most serious nature.

To discuss the question of treating pulmonary consumption exhaustively would fill a large volume, and cannot be the object of this paper ; the writer wishes only to point in short to the advantages of sanatorium treatment, and how we can best antagonize the tubercular bacillus, if we admit that specific treatment is not available. All our efforts must be concentrated to fight the strongest enemies of consumptives, and most prominent among them are :

1. The disposition to take cold.
2. The weak heart and feeble circulation.

3. The anorexia.

4. The fever.

The peculiar sensitiveness of the lining membrane of the air-passages in consumptives, which depends probably upon a loss of elasticity of the capillaries supplying it, caused by frequent previous inflammation and congestion (Cohnheim) make it at once the locus minor resistentia and cause the patients to be decidedly susceptible to otherwise unimportant changes in the surrounding atmosphere. It is hardly necessary to say that most of the relapses, which so frequently interfere with the convalescence of phthisical patients, originate from that source, and it is evident that hardening of the system against such morbid susceptibility is an essential part of phthisotherapy. To inform the patients of the value of this part of the treatment is necessary, but it would be a serious mistake to allow them to make their own experiments in that line, or to give certain *general* directions which would apply to all cases. A careful scrutiny of the vitality and the general constitution of each patient is necessary, and a thorough knowledge of the climatic conditions of the locality is one of the first requirements of the sanatorium physician. During the first weeks new cases must be treated with the greatest caution, and daily advice as to the most suitable means to invigorate the system should be given; the residence of the physician within the sanatorium and his constant communication with the patients will enable him to do that. An abundant amount of fresh air, rubbing of the skin with wet and dry towels, the cold douche and baths, are the means employed to obtain the desired result, and are of value in the line mentioned.

Fresh and pure air, the support of all vegetable life, naturally takes the most conspicuous part among

the remedies for the cure of a disease which destroys life principally by obstructing the air-pump of the human organism.

If it were possible to supply a sufficient amount of air to oxidize all the venous blood, whether the lung be diseased or not, the greatest advance would be made in prolonging the life of consumptives. The physician who tells his phthisical patients to go in the country and get all the fresh air they can should at the same time remember that such a potent factor, one destined to be of such great service, is apt to produce harm if used without discretion. This is especially true in localities of high altitude, where diminished air-pressure increases frequency of the contractions of the heart.

Permit me to quote from an article read by me, January 27, 1888, before the Section on Materia Medica and Therapeutics of the New York Academy of Medicine: "In connection with others, Dettweiler praises the invigorating influence of pure mountain air and its great value as a powerful agent in the treatment of consumption, but, contrary to the general usage, he does not allow his patients to use it at first without positive instructions from the attending physician. He maintains that the patient who has, in many instances, been confined to his bed for weeks previous to his journey to the sanatorium, anticipating wonderful effects from pure air, indulges in an excessive use of it." New patients are not permitted to walk outside of the immediate neighborhood, or even remain outdoors for a long time. Under ordinary circumstances the duration of outdoor living is lengthened daily, and the greatest importance is attached to "resting in the open air." It was highly interesting to the writer to observe, during his recent visit to the Adirondack Cottage Sanatorium, at Sara-

nac Lake, Franklin County, N. Y., which is under the charge of our honored colleague, Dr. E. L. Trudeau, that the latter, for some time, had recognized the value of "resting in the open air," and that, entirely independent of Dettweiler's teachings, his patients were in the habit of lying for hours on steamer chairs in front of their cottages. Dr. Trudeau attaches much importance to this method of taking an "air-bath." Dettweiler claims that his experience, extending over a period of more than ten years, has convinced him that immunity against the unfavorable influences of sudden changes in the climate diminished cough, increased appetite, and lessened fever, are results obtained by the permanent air treatment. Fortunately for those who cannot, for some reason or another, avail themselves of the benefits offered by sanatorium treatment, the method adopted and tried by Dettweiler and Trudeau can be employed in any hospital or household, and it is to be hoped that it will be. Of course, in due time, exercise in the open air is added to "resting," but the distances are always limited, and the patients are positively instructed to walk slow, body erect, taking deep and full inspirations, breathing through the nose, avoid talking while walking; they are told to rest frequently, and to avoid overtaxation of the heart; they are taught to walk uphill first, so as to have to make the easier portion of their walk, not at the beginning, when they feel strong, but towards the end. Dr. Brehmer's Sanatorium has a beautiful park in front of it, and hundreds of resting-places, a number of garden-houses, and five or six covered pavillions are erected to provide for suitable resting-places. Where do we find similar arrangements in open health resorts?

Rubbing of the skin with dry or wet towels, the

cold douche, and baths are made use of to strengthen the entire system, and to diminish the susceptibility of "taking cold." The first one of these applications is in great favor with the physicians of Davos, and some of the larger hotels there even have the facilities to administer "the cold douche." It will not be claimed that the rubbing of the skin with dry or wet towels cannot as well be performed while the patients are in bed in a hotel or boarding-house as in the sanatorium, provided the nurse understands his or her business thoroughly, but the value of the cold douche depends *entirely* upon its proper use, and it should only be applied under the personal direction and in the presence of the physician. The douche must be short, not longer than forty seconds, strong, and cold, 45-50° F., and it must always be followed by a thorough rubbing of the skin with dry towels. It is important and sometimes difficult to decide which patients will be benefited by the cold douche, which obtain better results from rubbing with wet towels, and which cannot stand either; only those patients who feel comfortably warm after the use of the douche • can derive benefit from its application. It is hardly necessary to call attention to the fact that the proper place for the use of the douche is the sanatorium, and that its use is practically out of question in many health resorts.

The weak heart and enfeebled circulation, which is a constant companion of phthisical patients, will be benefited by everything that improves the quality and the quantity of the blood. A special heart tonic is the dilated air of high altitudes; the heart has to do more work, and, like other muscles, it gains strength and power thereby. The same outdoor exercises which the writer considered dangerous if used without proper medical advice—rowing, gymnastic exer-

cise, mountain-climbing, etc.—are of value if considered as *remedial agents* and employed as such.

The most natural channel for improving the condition of the blood is proper alimentation, and *it* necessarily forms a vital part of the treatment of consumption. It is unfortunate that most phthisical patients have been small eaters even before the disease became developed, and that anorexia is present in almost all cases. If we succeed in feeding our patients well and keeping the alimentary tract in good condition, much is gained; but it is the experience of everybody who treats consumptives that *sometimes* our means become exhausted without obtaining the desired result. We all know that in physiological life the appetite is greater in the cool weather than during the hot summer months, and it has been proven in numerous instances that patients who would and could not eat at home showed a marked improvement if taken to mountainous regions. Drs. Brehmer, Trudeau, and Dettweiler state that it is a frequent occurrence to see patients become real hungry after remaining a number of days in their respective institutions, and all of them attribute this favorable sign to the influence of the mountain air only. A great advantage which the sanatoria possess over open health resorts lies in the fact that they are conducted for no other purpose than to benefit the patients, and that the kitchen and the bill of fare is under the personal control of the physician. In the hotels and boarding-houses three meals a day are the rule, both Brehmer and Dettweiler insist upon five, with plenty of milk taken between meals.

The composition of the consumptive's diet is of vital importance, and it is self-evident that a hotel-keeper is not the proper person to decide which kind of food is most beneficial to patients. The frequent

changes in the diet which will often tempt the patients to eat if otherwise they would not, cannot be expected in hotels, and even the construction of the dining-rooms in a sanatorium is specially adapted to suit the patients; in Brehmer's Institution the air in the dining-room is changed five times an hour by means of the so-called Kosmos ventilation, and its temperature remains cool even during the heated term. The five meals are arranged as follows: about 8 A.M. first breakfast, consisting of coffee, tea, chocolate, or milk, with cakes or rolls and plenty of butter or honey; about 10 A.M. second breakfast, bread and butter with milk *ad libitum*, or bouillon with rolls and cold meat; dinner at 1 P.M., consisting of soup, fish, roast, with a variety of vegetables, salad, and dessert; at 4 P.M. coffee or milk is served; at 7 P.M. supper follows, consisting of soup, warm and cold meat dishes, compote, etc., and at 9 P.M. many patients take another glass of milk. In cases where mountain air, well-prepared food, or even rare delicacies cannot overcome the anorexia, the patients are ordered to take one to two ounces of milk every fifteen minutes, and a large quantity is in that way taken during the day without overloading the stomach at any time. The careful sanatorium physician takes care that his patients receive not only a nutritious diet, in which albuminous food, fats, and carbohydrates are represented in suitable proportions, but he also looks after the peculiarities of those who are not enjoying a good appetite—for much good is frequently done by ceasing the rebellious stomach. Considerable difference of opinion seems to exist about the proper use and the value of alcoholic stimulants as food; wine, either Hungarian or Rhine, is used with the meals both in Brehmer's and in Dettweiler's Institution; but the latter also gives the patients brandy in small doses

during the day and allows the taking of a glass of Bavarian beer with supper. Dr. Brehmer objects strongly to the free use of malt or spirituous liquors, and he advocates that with phthisical patients alcohol must strictly remain a remedy and not become a beverage. No one will doubt that the use of alcoholic stimulants can better be regulated and controlled within a sanatorium than outside of it, and a visit to a bar-room filled with smoking guests, such as the writer mentioned having observed in open health resorts, cannot occur within a properly-conducted sanatorium. As to the value of alcohol as a powerful remedial agent, little difference of opinion exists between Drs. Brehmer and Dettweiler; the former says in his recent work on the treatment of phthisis: "When I first used alcohol in the treatment of pulmonary consumption I did so for its beneficial effect upon the heart and the circulation, but longer than twenty years ago I found that it also possessed great value in aborting or shortening the chills and reducing the temperature, and that it might properly be classified among the antipyretics." The same author recommends before retiring the administration of two or three teaspoonfuls of brandy in case of night-sweats; but he states that larger quantities of alcohol rather favor the sweating than prevent it. As intimated above, in the Sanatorium Falkenstein alcohol is used more liberally, and Dettweiler goes so far as to say he would give one-half of the entire materia medica for this one remedy; his own words are: "I should be least willing to abandon the use of alcohol in fever, the most potent enemy of the phthisical patient. After many trials and experiments with a large variety of remedies, I will say freely that I would rather dispense with the use of salicyl., antipyrin, or quinine, than with good wine or brandy." The possibility of

making habitual drunkards of phthisical patients does exist, but it is reduced to a minimum as long as stimulants are administered according to medical directions—the patients not being permitted to visit bar-rooms or cafés, and there imbibe according to taste and surroundings.

The last subject to be considered is the fever, which, at some time or another, is present in every case of pulmonary consumption, and which is as dangerous to life as the destructive local disease itself. One of Brehmer's rules applying to all new patients is deserving of special attention: the temperature is taken every two hours; an accurate record of the result is kept in each instance. Dr. Brehmer claims that many cases have come under his observation where excellent practitioners had sent him patients with the record: "free from fever," while the two-hourly measurement showed considerable elevation at various times of the day, a fact which would naturally escape the attention of the attending physician, who is in the habit of taking the temperature once a day—his calls being made generally at about the same time. The most important antidote to the fever is the open air treatment, and the opinion of those who had opportunities to make observations on a large scale is not divided upon that subject. The value of alcohol has been spoken of, but the application of the ice-bag over the region of the heart is also a favorite remedy in the European Sanitaria, and receives much praise from those who use it. General advice must be especially avoided in regard to the use of the ice-bag, because its favorable influence is most marked if used during the period of the greatest elevation of temperature, and that can only be decided by frequent and careful measurements; it should never be applied for at least a

half-hour after the chill. Dr. Brehmer, who has in his possession the carefully-recorded histories of over 14,000 phthisical patients, cites a large number of cases, and published the fever-curves, which were treated at Goerbersdorf simply by resting, taking alcohol in the form of Hungarian wine and brandy with milk at bedtime, and the application of the ice-bag, all of which showed a normal temperature within three, five, or seven months. Not exactly within the scope of this paper, but very important nevertheless, is the discussion of the use of antipyretica in phthisical fever. In the writer's opinion we have in antifebrin a sovereign remedy, and while we know perfectly well that we cannot extinguish the burning flames by the use of *any* remedy, experience teaches us, and I am glad to say that my friend, Dr. E. L. Tradean, fully agrees with me, that antifebrin has a most decided influence upon the temperature, and that under its influence the appetite increases and the general condition of the patient improves. The writer would raise his voice, however, against the use of large doses, and he seldom administers more than three grains four times a day, and he has seen unfavorable effects of ten grain doses. General rules are dangerous; each case must be treated individually.

Another advantage which sanatoria have over many of the so-called summer resorts, lies in the fact that most of the latter close during the winter, while the institutions for the treatment of consumption remain open all the year round, and the treatment once begun may be continued until restoration to health has been accomplished, as best illustrated by the Adirondack Cottage Sanatorium, which has as many inmates during the winter months as during the summer, while the neighboring fashionable hotels

close their doors sometime during the month of October, and thereby compel patients to seek other quarters and place themselves under different treatment.

Efforts have been made in this country to establish institutions for the rational treatment of pulmonary consumption. The writer calls attention to the attempts of Dr. H. G. Tyndale, in Menitow, Col., and Dr. J. W. Gleitsman, in Ashville, N. C. It is to be regretted that neither of them succeeded, for, aside from the benefit which such institutions bring to suffering humanity, it must be remembered that careful clinical observations, accurate scientific work, the study of the clinical history and reliable statistics cannot find a better home than a properly-conducted sanatorium. In conclusion, I wish to add my testimony to that of several sanatorium physicians, and say that visits to the best-known institutions and frequent conversations with patients have convinced me that the inmates are comparatively happy, and many of them entirely contented to stay for a long time; that, contrary to our natural expectations, the living together of so many consumptives does not produce a depressing influence upon the individual, and that most of them know or learn easily how to occupy the time in such a way as to derive benefit therefrom and pass through the day without feeling that heavy load—no work—resting upon them.

